

Stainless Steel Sheet

Description

Stainless steel sheet is a corrosion-resistant alloy of iron, chromium, and often nickel. It is valued for its strength, clean appearance, and resistance to rust and staining.

Common Alloys

- 304/304L: Most common grade; good corrosion resistance, formability, and weldability. Non-magnetic.
- 316: Similar to 304 but with added molybdenum for improved corrosion resistance in marine or chemical environments.
- 430: Ferritic grade; lower corrosion resistance, magnetic, more economical for decorative or indoor use.
- 409: Used in automotive applications; good oxidation resistance and weldability.

Finish Options

- 2B: Smooth, dull gray finish (standard mill finish)
- #4: Brushed finish (commonly used in appliances)
- #8: Mirror finish (highly reflective)
- BA: Bright Annealed (shiny and reflective, smoother than 2B)

Specs

Typically conforms to ASTM A240/A480. Available in a wide range of thicknesses and tempers.

Applications

Kitchen equipment, architectural panels, medical devices, chemical tanks, marine hardware, and food processing equipment.

Thickness Range

Commonly from 0.018" to 0.125" for sheet products.

Formability

304 and 316 have excellent formability and are suitable for deep drawing and bending. Ferritic grades have moderate formability.

Weldability

Austenitic grades (304, 316) weld well with conventional methods. Ferritic grades require care to avoid brittleness.



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Paintability

Generally not painted, as appearance is a key feature. Can be powder coated or etched if needed.

Protection

Naturally corrosion-resistant; no coating required. Protective plastic films are often applied to prevent scratching during handling.

Pros

Excellent corrosion resistance, clean appearance, durable, wide alloy and finish selection.

Cons

Higher cost than carbon steels; some grades are harder to machine or weld.